

SEP 14 2009

Serial No. 10/561,975  
Reply to Office Action dated June 23, 2009

Docket No. 1006/0117PUS1

**REMARKS/ARGUMENTS**

Favorable reconsideration and allowance of the present application is respectfully requested. Claims 1-24, 27 and 28 are pending in the above application, with claims 1, 5, 18 and 27 being independent. By the above amendment, claims 27 and 28 have been added, and claims 25 and 26 have been cancelled without prejudice.

The Office Action dated June 23, 2009, has been received and carefully reviewed. In that Office Action, claims 3, 6, 7, 10, 12, 14, 16, 18, 25 and 26 were rejected under 35 U.S.C. 112, second paragraph as being indefinite. In addition, claims 1-14, 16, 17, 19 and 22-26 were rejected under 35 U.S.C. 102(b) as being anticipated by EP 1054225 (hereinafter "Furukawa"), claim 15 was rejected under 35 U.S.C. 103(a) as being unpatentable over Furukawa in view of Bond, and claims 18 and 20-21 were rejected under 35 U.S.C. 103(a) as being unpatentable over Furukawa in view of Wennerberg. Objections to the drawings and claims were also raised. Reconsideration and allowance of all claims is respectfully requested in view of the above amendments and the following remarks.

**DRAWING OBJECTIONS**

The drawings were objected to for failing to show the leaktightness sensor recited in claim 15. Revised Figure 1 now shows such a sensor, and the specification has been amended to refer to this sensor. The entry of the replacement drawing sheet and the withdrawal of the drawing objection are therefore respectfully requested. No new matter has been added.

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### CLAIM OBJECTIONS

Claims 11 and 25 recite "joins." The examiner has requested that the word "joins" be replaced with the word "joints," apparently on the basis that "join" is either a typographical error or a mistranslation. It is respectfully submitted that a "join" is another name for a "joint" and that the claims are grammatical and use the terms selected by the applicant. The requirement for changing the word "join" to "joint" is therefore respectfully traversed.

### ABSTRACT OF THE DISCLOSURE

The abstract of the disclosure has been revised to remove legal terminology, such as "consist" and "said" therefrom. Applicants respectfully submit that no new matter has been added.

### REJECTIONS UNDER 35 U.S.C. 112, SECOND PARAGRAPH

The language "in particular, although not exclusively" in various claims was said to render those claims indefinite. By the above amendment, this language has been removed from the claims. Claim dependencies have also been revised to address the antecedent basis issues noted in the Office Action. It is believed that all claims satisfy the requirements of 35 U.S.C. 112, second paragraph, and the withdrawal of the rejections of these claims is respectfully requested.

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REJECTIONS UNDER 35 U.S.C. 102(b)

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Furukawa. Claim 1 as amended, recites, inter alia, an apparatus for heat exchange, having at least three flow devices through which at least one flowable medium flows. The apparatus includes at least one fluid inflow device, at least one fluid collection or distribution device and at least one fluid outflow device for each of the flow devices through which substantially liquid fluids flow. The apparatus also includes at least two flow assemblies, each having at least two flow elements which are arranged in such a manner that different fluids flow through them alternately, the at least two flow elements each comprising a front, a rear and first and second sides bounding a generally planar surface. Furukawa's flow elements comprise a plurality of channels formed by the corrugated plates 15, the corrugations of one plate touching the corrugations of an adjacent plate as illustrated in Figure 3. Furukawa's flow elements do not have fronts, rears, and first and second sides bounding a generally planar surface as recited in amended claim 1. Claim 1 as amended is submitted to be allowable over Furukawa for at least this reason.

Claims 2-4, 8-17 and 19-24 depend from claim 1 and are submitted to be allowable for at least the same reasons as claim 1.

Claim 5 has been rewritten in independent form and is substantially identical to original claim 5 with the exception that most occurrences of the term "and/or" have been replaced with either "and" or "or." Claim 5 recites the apparatus for heat exchange of claim 1 wherein turbulence-generating and/or turbulence-increasing shaped elements are provided. The Office Action indicates that elements "5" in Figure 3 are turbulence

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generating or turbulence increasing elements. The only reference numeral used in Figure 3 is numeral 15, and it is believed the Office Action intended to refer to this numeral. Corrugated plates 15 define channels through which a fluid flows. The channels appear uninterrupted, and it is therefore not clear why one of ordinary skill in the relevant arts would refer to these channels as "turbulence generating." Furukawa does not show or suggest turbulence generating or increasing elements as recited in claim 5, and claim 5 is submitted to further distinguish over Furukawa for this reason.

Claims 6 and 7 depend from claim 5 and are submitted to be allowable for at least the same reasons as claim 5.

If the rejection of claim 5 is not withdrawn, it is respectfully requested that the examiner provide a more detailed explanation regarding how elements 15 are being interpreted to generate or increase turbulence so that the basis for this rejection will be clear in the record.

#### REJECTIONS UNDER 35 U.S.C. 103(a)

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Furukawa in view of Bond. Claim 15 depends from claim 1. Bond does not address the shortcomings of Furukawa discussed above in connection with claim 1. Claim 15 is therefore submitted to be allowable for at least the same reasons as claim 1.

Claim 18 was rejected under 35 U.S.C. 103(a) as being unpatentable over Furukawa in view of Wennerberg. Claim 18 has been rewritten in independent form and the indefinite phrase "in particular, although not exclusively" has been removed. Claim 18 recites, in addition to the limitations of original claim 1, that the at least one

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flow device has admixed with it, via at least one further inflow device, a fluid which corresponds to the fluid in this flow device. The Office Action acknowledges that Furukawa does not show at least this underlined limitation. However, Wennerberg is cited to show a flow device 5 for the purpose of combining or mixing the fluid flows. It is respectfully submitted that Wennerberg provides no suggestion to modify Furukawa in any manner, and the rejection of claim 18 is respectfully traversed.

Wennerberg includes an opening 5 for draining condensate (column 3, lines 56-60). Wennerberg therefore at most might suggest adding an opening somewhere in Furukawa to drain condensate. However, a drain opening is not a further fluid inflow device for admixing a fluid, and Wennerberg therefore provides no suggestion to add a further inflow device to Furukawa as stated in the Office Action. The modification to Furukawa proposed by the Office Action is not suggested by Wennerberg, and claim 18 is submitted to be allowable over Furukawa and Wennerberg for at least this reason.

If the rejection of claim 18 is not withdrawn, it is respectfully requested that the examiner explain how the condensate drain opening in Wennerberg is believed to suggest adding a further inflow device to Furukawa so that the basis for this rejection can be better understood.

Claims 20 and 21 are submitted to be allowable for at least the reasons provided above in connection with claim 18.

#### NEW CLAIMS

New claims 27 and 28 are also submitted to be allowable over the art of record. Claim 27 recites an apparatus for heat exchange having first, second and third flow

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devices defining first, second and third flow paths for maintain first, second and third separate flows of at least one fluid. Each of the flow devices has a front, a rear and first and second sides, and each of the flow devices includes a fluid inflow device, a plurality of fluid distribution trays each having a substantially planar wall between the front and rear and between the first and second sides, and a fluid outflow device. The apparatus includes a first flow assembly comprising a first subset of the plurality of first flow device distribution trays interleaved with the plurality of second flow device distribution trays and a second flow assembly comprising a second subset of the plurality of first flow device distribution trays interleaved with the third flow device distribution trays. The first flow path begins in the first flow assembly and ends in the second flow assembly, the second flow assembly begins and ends in the first flow assembly and the third flow path begins and ends in the third flow assembly. The distribution trays of the first flow device are connected in a substantially gastight and liquid-tight manner to the distribution trays of the second flow device and to the distribution trays of the third flow device, and the distribution trays are stacked such that the planar walls are mutually parallel. Furukawa and the other art of record do not show at least distribution trays as recited in this claim, and claim 27 is submitted to be allowable for at least this reason. Claim 28 further defines projections or depressions on the mutually parallel walls configured to alter a fluid flow, and this limitation is also not shown or suggested by the art of record.

### **CONCLUSION**

Each issue raised in the Office Action dated June 23, 2009, has been addressed, and it is believed that claims 1-24, 27 and 28 are in condition for allowance.

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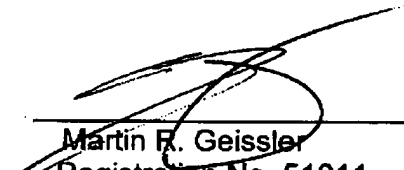
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Wherefore, reconsideration and allowance of these claims is earnestly solicited. If the examiner believes that any additional changes would place the application in better condition for allowance, the examiner is invited to contact the undersigned attorney at the telephone number listed below.

*Deposit Account Authorization*

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 50-3828 and please credit any excess fees to such deposit account.

Respectfully submitted,

  
\_\_\_\_\_  
Martin R. Geissler  
Registration No. 51011

PO BOX 1364  
Fairfax, VA 22038-1364  
1.703.621.7140

**Date: September 14, 2009**